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Descriptive and Illustrated Catalogue



FRUIT and

Ornamental Trees

Shrubs, Plants



JAPAN PLUMS. See page 13.

Willis' Nurseries

A. WILLIS, PROPRIETOR

Ottawa, Kansas

TELEPHONE NO. 25

Office and Sales Ground: East End of Fifth Street

SPRAYING.

We give the following brief directions as to how and when to spray. More complete directions can be obtained by consulting standard works on horticulture.

Experience has demonstrated the fact, that spraying, properly done at the proper time, for protection against destructive insects, rot, fungus and blight is the best if not the only sure remedy against these enemies of the horticulturist. That it has succeeded and will succeed is evidenced by the rapidly increasing interest manifested in the manufacture, sale and use of spraying machines, and the good results obtained by those who have practiced this mode of protection.

WHEN TO SPRAY.

Apple Trees. For prevention of leaf blight, spray as soon as the leaves are full grown, with Bordeaux mixture or ammoniacal carbonate of copper. To destroy aphid or plant lice, spray with kerosene emulsion as soon as the pests appear. To destroy the codling moth, canker worm and curculio, spray with Paris green or London purple, $\frac{1}{4}$ pound in 40 or 50 gallons of water, soon after the blossoms fall, and again in two weeks later. To destroy the web worm, spray with London purple or kerosene emulsion about August 1 to 10, or as soon as pests appear. This application should be made during the middle of the day, when the worms are out of their webs and feeding on the leaves.

Cherries. Treatment same as recommended for the apple.

Pears. The pear slug can easily be destroyed by spraying with Paris green, 4 ounces to 50 gallons of water, or with kerosene emulsion, as soon as the slug begins operations. Pear and quince blight can be destroyed by spraying with Bordeaux mixture. The codling moth and curculio should be treated same as recommended for apple trees.

Plums. Destroy the aphid with kerosene emulsion and a fine spray nozzle. The curculio can be destroyed by spraying with 3 oz. Paris green to 40 gallons of water. First application should be made as soon as blossoms have fallen, and repeated at intervals of a week or ten days. Four applications should be sufficient. Other enemies of the plum will be destroyed by this method, but in all cases be particular to keep the poison and water constantly stirred.

Peaches. If attacked by the black peach aphid, spray with kerosene emulsion. The plum curculio frequently attacks the peach, in which case spray with Paris green, 2 ounces to 50 gallons of water; be sure to keep it well stirred, and use with caution. Never use London purple on peach trees.

For Grape Rot and Mildew, use Bordeaux mixture.

Currants and Gooseberries. To destroy the worms, spray with powdered white hellebore, 1 ounce in 3 gallons of water, as soon as the worms appear. To destroy the yellow aphid, spray with kerosene emulsion early in the season. To prevent mildew, use $\frac{1}{2}$ ounce potassium sulphide to 1 gallon of water.

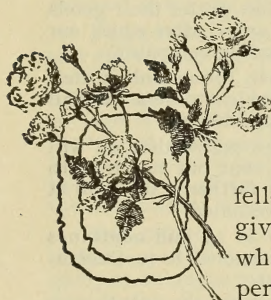
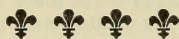
FORMULAS.

Kerosene Emulsion. In making kerosene emulsion for spraying trees for lice, be sure and follow the correct method: Dissolve in 2 quarts of water 1 quart of soft soap or $\frac{1}{4}$ pound of hard soap by heating to the boiling point. Then add 1 pint of kerosene oil and stir violently for from 3 to 5 minutes. This may be done by using a common force pump and putting the end of the hose back into the mixture again. This mixes the oil permanently, so that it will never separate, and it may be diluted easily at pleasure. This mixture should be diluted to twice its bulk with water or about 14 times as much water as kerosene. The kerosene emulsion is successful in destroying cattle lice and sheep ticks, as well as all varieties of plant lice.

Bordeaux Mixture. Six pounds of sulphate of copper are dissolved in 6 gallons of water. In another vessel 4 pounds of fresh lime are slaked in 6 gallons of water. After the latter solution has cooled, slowly turn it into the other solution and add 10 gallons of water. This, when all is thoroughly mixed and strained, is ready for use. In straining this mixture, reject all of the lime sediment, using only the clear liquid. Strain the whitewash through a coarse gunny sack stretched over the head of a barrel.



Anniversary Greetings and Pledges.



OUR FIRST DUTY in this edition of our Catalogue is to give sincere thanks to the many who have assisted us by their patronage, to the friends and fellow laborers in the good work of horticulture who have given us valuable information and counsel, and to all who for these many years have contributed to our prosperity in such a way that we can now fill the valued orders intrusted to us better than at any time in our history.

TWENTY-FIVE YEARS AGO the Willis Nurseries were established. During these years we have given to the needs of customers our most faithful service. We have ever sought to send out the choicest of nursery stock, packed in the best manner, shipped promptly, and have endeavored in every way, at all times, to serve our customers for their best interests. How well we have succeeded must be judged from their reports, but we have room to publish only a few of the letters received from our patrons toward the close of last season.

OUR PLANT now far exceeds its previous proportions, and we are well supplied with all that goes to make up a *complete establishment*, an office with complete equipment, packing house, and grounds with latest improved machinery for handling stock in the best manner, and a corps of experienced assistants, who study to further the best interests of our patrons.

EXCELLENT SHIPPING FACILITIES, also, are ours, including two express companies, and railroads running to every point of the compass.

AND NOW FOR THE FUTURE! We again solicit your orders, and pledge to our customers the best service that good stock, ample equipment, long experience, and best shipping facilities can bring.

Address

WILLIS' NURSERIES, Ottawa, Kansas.

ADVICE AND TERMS.

We will be responsible only for the remittance of money sent us by postal order, express money order, registered letter or bank draft.

In writing us or making an order, please always be careful to write your name and post office address plainly.

It will be a great convenience to us, and many times a benefit to you, to send in your orders early.

When the cash is sent with the order, all orders for \$1 or more will be packed and delivered at railroad or express office free, and if the order amounts to \$5 or more, transportation charges will be paid to nearest freight or express office. All trees will be carefully labeled and packed.

Substitution. We will fill all orders as near as possible as requested, but when, as is sometimes the case, we run out of particular varieties, we will, unless otherwise directed, fill the order as given as far as we can, and substitute good varieties for those we cannot supply.

Our customers will please designate the route over which they prefer their goods shipped. We will deliver our goods to the forwarders in good order, after which our responsibility ceases, and the purchaser must look to the forwarding companies.

Please notify us at once in case of any shortage or errors in filling orders, that we may make proper amends. We are anxious to give all our customers the full worth of their money and to retain to the fullest extent their confidence.

Warranty. We will warrant our stock true to name to the extent that we will refund the money paid or replace free of charge any stock sent out not true to name, but in no case could we make a warranty that would go farther. We shall at all times use every care to have everything sent exactly as represented.

The packing season with us usually begins from March 1 to 15, and continues from April 15 to May 1 in the spring; in the fall from about October 10 to December 1, and sometimes favorable weather continues till Christmas.

In this Catalogue we make no pretence to giving the largest assortment, but we have tried to select a list of varieties that will, when planted and cultivated to fruitage, give good returns for the investment made.

We have been slow to recommend novelties, believing our customers would in the end be better satisfied with the good returns that can be realized from the planting and careful cultivation of known reliable kinds. There are numerous candidates for favor offered to the planter every year, but the list of kinds our best horticulturists consider thoroughly reliable is not rapidly increasing. Would I, then, advise my customers to plant no new fruits? Hardly; and yet if you plant to raise fruit, the most certain way is to plant well-tested, successful kinds. If you plant new fruits, plant no more than you are willing to risk in an experiment.

MANAGEMENT AND CARE OF TREES WHEN RECEIVED.

To the planter or purchaser of nursery stock, at least three things are indispensable: (1) Varieties true to name. (2) Healthy, vigorous, well matured trees or plants. (3) Careful and judicious packing, without which all may be lost.

We give the most careful attention to the propagation of varieties, endeavoring by all methods known to us, to protect ourselves from error or imposition, and rejecting anything of which we have reason to feel suspicious.

Our soil being of a character best suited to produce the healthiest conditions of growth—that solid, firm texture of the wood, with abundant fibrous roots, so necessary to successful transplanting—we are enabled to offer the products of our Nurseries with entire confidence to planters in all sections of the country.

We give to our packing and shipping careful personal supervision, and to still further protect our patrons as well as ourselves against loss in this direction, we employ the most skilled and competent hands to assist us.

PLANT YOUNG TREES.—We cannot too strongly recommend to our customers the procuring of young trees, especially for orchard planting, instead of selecting the largest that can be had, to secure a more immediate effect. Young trees cost less at the nursery, also in freight, handling and planting; they can be taken up with more perfect roots, and will become sooner established in a new location. They can also be more readily trained to any desired shape. The largest and most successful planters invariably select young, thrifty trees.

For small grounds, or street planting, where it is necessary to make a show as soon as possible, large trees are often desirable, and when handled with care should not fail to do well, but with the general planter the average of loss will be much less, and both time and money will be saved, if young trees are selected.

THE SOIL. A rich loam is the best for fruit, made sufficiently dry by artificial drainage if necessary, but all soils may be made available by judicious treatment.

PREPARATION FOR PLANTING. Plow and subsoil repeatedly, so as to thoroughly pulverize to a depth of 12 to 18 inches. When planting upon the lawn or grass plots, remove the sod for a diameter of 4 or 5 feet, and keep this space well worked and free from weeds. Dig the hole deeper and larger than is necessary, to admit all the roots in their natural position, keeping the surface and subsoil separate. Cut off broken and bruised roots, and shorten the tops to half a dozen good buds, except for fall planting, when it is better to defer top pruning until the following spring. If not prepared to plant when your stock arrives, "heel-in," by digging a trench deep enough to admit all the roots, and setting the trees therein as thick as they can stand, carefully packing the earth about the roots. Never leave the roots exposed to the sun and air, and "puddle" before planting.

PLANTING. Fill up the hole with surface soil, so that the tree will stand about as it did when in the nursery, after the earth has settled, except for dwarf pears, which should be planted deep enough to cover 2 or 3 inches of the quince stock upon which they are budded. Work the soil thoroughly among the roots, and when well covered tramp firmly. Set the tree firm as a post, but leave the surface filling (of poorer soil) light and loose. No staking will be required except with very tall trees. Never let manure come in contact with the roots. At the outset, however, we would impress upon all in the strongest manner the necessity of thorough preparation of the soil, natural or artificial drainage, and careful cultivation, as indispensable.

MULCHING. We believe that frequent stirring of the ground to a depth of 2 or 3 inches, say once every week, is the best mulch. If this is not practicable, or is likely to be neglected, a covering of coarse manure, straw, marsh hay or loose chip dirt during the first season will effectually prevent injury from drouth, and is a benefit at all times.

DAMAGED TREES. If stock is frozen when received, place the package in a cellar and entirely bury in sand until frost is removed. If dried from long exposure, bury in the ground until the shrivelled look disappears.

HOW TO WINTER TREES PROCURED IN THE FALL.

The practice of procuring supplies of trees in the fall is becoming more and more general as each season demonstrates its wisdom. It is a more favorable time than spring, because of the colder weather and the lighter pressure of business with nurserymen, the freighting companies and the planter. Even when fall planting is not desirable by reason of the severity of the climate, or from other cause, the stock may be procured in the fall, and thus be on hand ready for the opportune moment in the spring. To insure success, you have only to get your trees before freezing weather, and bury them in the following manner: Choose a dry spot, where no water will stand during the winter, and with no grass near to invite mice. Dig a trench, throwing out dirt enough to put a layer of roots well below the surface, and place the trees in it, inclined to an angle of 45 degrees or more. Widen the trench, throwing the soil on the roots and well up on the bodies of the trees now in position, then pack the earth closely and firmly around every root. This work cannot be too well done. Place another layer in the trench, leaning the tops on the others, and so on until all are in the trench; then finish by throwing up more soil until the tops of the trees are nearly or quite covered. It is also well to bank up the earth around the sides to insure more thorough protection. Care should be taken to fill solid all the interstices among the roots, and to pack the earth closely about the roots in the trenches. When the work is done, the tops should be well covered with waste hay or straw, to protect them from drying winds. If at the time of heeling-in the ground does not contain sufficient moisture, water should be applied to prevent injury from severe drying. Yours truly,

Telephone No. 25.

WILLIS' NURSERIES,

Ottawa, Kansas.

Fruit Trees.

Apples.

The first fruit, both in importance and general culture, is the Apple. Its period, unlike that of other fruits, extends nearly or quite through the year. By planting judicious selections of summer, autumn and winter sorts, a constant succession can be easily obtained.

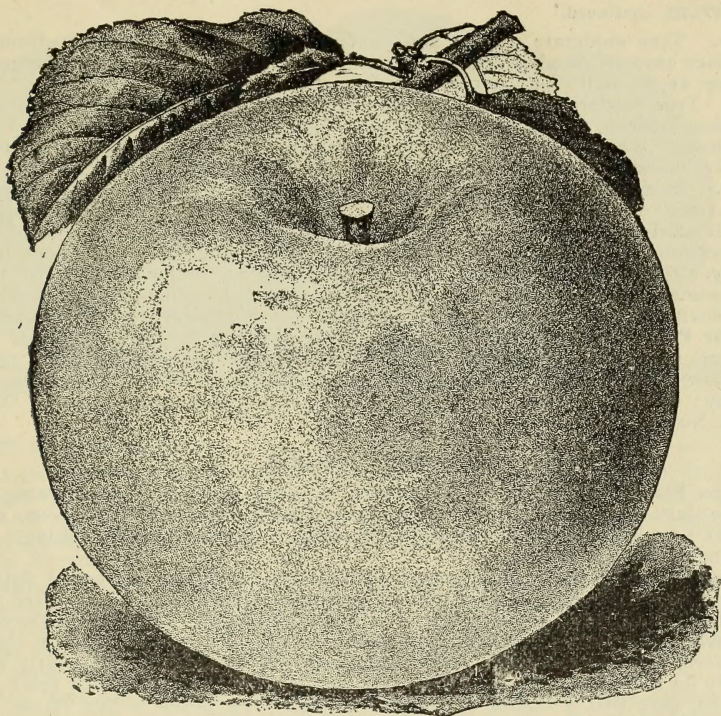
There is no farm crop which, on the average, will produce one-fourth as much income per acre as will a good Apple orchard. As it takes from six to eight years for an orchard to come into bearing, some people hesitate to plant, regarding the time and expense as in a great measure lost.

Fruit has become cheaper on account of the large supply, and consumers are rapidly becoming more numerous. In addition to a wide home market, a vast European demand is springing up, tasking the skill of the raiser and shipper in placing the finest specimens, through careful growing, selection and packing, before the European purchaser. Vast canning establishments utilize the surplus crops, and an immense foreign market is likely to spring up in the future for the best fruit, dried by the best means, at moderate rates, requiring far less risk and expense in trans-Atlantic conveyance.

There seems to be no limit to the profitable production of the Apple. Take any particular year, and you cannot name another crop so reliable and so profitable as a well cared for Apple orchard. There is no reason to look for any change in this for many years to come. Even when farm products are low, and in little demand, there has been no year when there was not a good market for choice Apples at paying prices. The planting and proper care of increased fruit plantations would do much to relieve the farmer from the present financial difficulties that surround him. Numerous examples of successful Apple culture point the way to success. We may plant largely with every assurance of success if our plantations are properly cared for.

SUMMER APPLES.

- American Summer** (Pearmain). Tree slow grower, but when grown to maturity a good bearer. Fruit medium size, oblong or round; color greenish yellow, more or less covered with dull red; flesh tender and juicy, mild, subacid. Quality best. Use for dessert; is not recommended for market. August and September.
- Carolina Red June.** Tree moderate, upright grower, early and abundant bearer. Fruit small to medium, oblong, surface smooth; color dark red, with white ground; flesh white, very tender, fine grained, juicy, acid; quality good; for table and market. June and July.
- Cooper's Early.** Size medium; color pale yellow, with faint blush on sunny side; flesh white, crisp, sprightly, mild acid; a good cooking variety. Tree hardy, an early bearer and heavily productive.
- Early Harvest.** The most popular summer Apple on our list. Tree healthy, vigorous grower and good bearer; fruit medium size, nearly round, somewhat flattened; surface smooth, clear waxy yellow, rarely blushed; flesh tender, juicy, acid to subacid, flavor good; quality best for table and kitchen. July.
- High Top Sweet** (Sweet June). Tree strong, upright grower, very productive; fruit small to medium, round, greenish yellow; flesh white or greenish white, fine-grained, tender; quality good; for table and kitchen. June and July.
- Keswick Codling.** An old English variety, very much liked by some as a cooking Apple. Tree a vigorous grower, hardy and productive; fruit medium size, oblong; surface smooth, pale yellow; flavor acid; quality good to very good for cooking. July to September.
- Duchess of Oldenburg.** A Russian Apple, and considered of great value farther north; here not often called for. Tree moderate grower and hardy; fruit medium size, surface smooth, waxen yellow, with stripes and splashes of red; flesh white, tender and juicy; sour and good for cooking.
- Red Astrachan.** Another Russian Apple that has proved to be very popular with planters. Tree vigorous, upright grower, hardy and productive; fruit medium to large; surface smooth, marbled and striped on greenish yellow; flavor acid; for kitchen and market.



MAIDEN'S BLUSH.

SUMMER APPLES, continued.

✓ **Summer Queen.** Tree vigorous, large, spreading, productive; fruit medium, round; surface yellow, covered with mixed red and scarlet; flesh firm, yellow; flavor acid, spicy; quality very good; for kitchen use. July and August.

✓ **Yellow Transparent.** A Russian variety, new and promising in the north. Tree hardy and moderately vigorous; an early and good bearer; fruit medium to small, skin clear white at first, becoming pale yellow when fully mature, often with a fine clear blush cheek; flesh white, tender, juicy, subacid, good. Early August.

FALL APPLES.

✓ **Bailey's Sweet.** Tree a moderately vigorous grower, productive; the most popular sweet Apple among our customers. Fruit large, round, not always regular; surface smooth, mixed and striped deep red; flesh yellow, tender, fine-grained, juicy; flavor sweet, rich; quality very good; for kitchen and market. September and October.

✓ **Fall Pippin.** Tree strong grower, not an early bearer; moderately productive when old; fruit large, globular; surface smooth, rich, yellow, sometimes blushed; flesh yellow, very fine grained, flavor acid, quality best; for dessert, kitchen, market, and drying. August to October.

✓ **Fameuse (Snow).** Tree hardy, vigorous and productive; a fine Apple of medium size, round; surface pale yellow, nearly covered with red, made up of stripes and splashes; flesh snowy white, tender, fine-grained, juicy; flavor mild, subacid; quality good to very good; for dessert, kitchen, market.

✓ **Lowell.** Tree strong, vigorous grower and good bearer; fruit large to very large, round; surface smooth, waxy, yellow, not blushed, becoming greasy when kept indoors; flesh yellow, fine-grained, juicy; flavor subacid; quality good to very good; for table, cooking, drying, market. August and September.

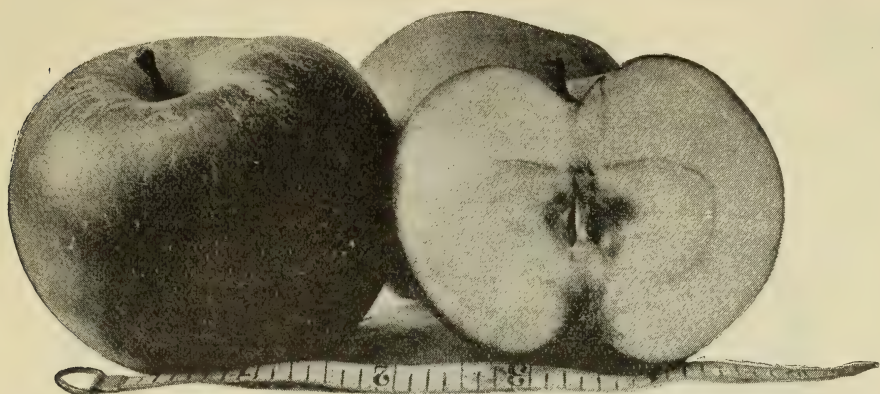
✓ **Maiden's Blush.** As we look over our orders, we find this the favorite fall Apple. Tree vigorous, upright grower, spreading, very productive; fruit medium to large, flat and very handsome; surface smooth, polished, pale waxy yellow with rich blush; flesh white, fine-grained, juicy; quality good; for cooking, table and market. August and September.

FALL APPLES, continued.

- Mother.** Tree moderate grower and moderately productive; fruit medium size; surface smooth, shaded red on yellow; flesh yellow, crisp, very fine-grained, juicy, sweet, rich; quality best; for dessert. September and October.
- Porter.** Tree moderate grower; fruit medium to large, oblong, somewhat conic; surface smooth, yellow, sometimes faintly blushed; flavor subacid to acid; flesh yellowish white, tender and juicy; quality good to very good; for kitchen, table, market. August and September.
- Rambo.** Tree strong, upright grower, abundant bearer; fruit medium to small on old trees; round, somewhat flattened at the ends; surface striped and splashed with scarlet, on greenish yellow ground; flesh greenish white, tender, juicy; flavor subacid; quality very good for table, excellent for cooking. Sept. to Dec.
- Wealthy.** Highly valued for its extreme hardiness at the far north. Tree thrifty grower and good bearer; fruit medium, roundish; skin smooth, oily, mostly covered with dark red; flesh white, fine-grained, juicy, subacid, good. Sept. and Oct.
- Wine, or Pennsylvania Red Streak.** Tree strong, healthy grower; fruit large, round, somewhat flattened at the ends, sometimes lop-sided; surface smooth, yellow, more or less covered with red splashed with crimson; flesh yellow, firm; juicy; flavor acid to subacid; quality good; use for cooking and market. October and November.

WINTER APPLES.

- Arkansas Black.** The tree is a beautiful, vigorous, upright grower, young wood very dark; fruit medium to large; fine flavor; beautiful dark color, almost black; flesh yellowish, slightly subacid, crisp. One of the best cooking Apples. January to July.
- Baldwin.** Tree strong, thrifty grower; fruit large, round, or somewhat flattened, sometimes irregular; surface smooth, yellow in shade, where exposed red; flesh yellow, juicy, rich; quality good; for table and cooking. October to December.
- Ben Davis.** More criticised and more planted than any other Apple on the list; scarcely needs description. Everybody plants it for market, and nearly everybody for home use. They criticise its poor qualities and then buy more trees, taking care that a liberal proportion of each new order is Ben Davis. Tree thrifty, upright grower, of almost perfect shape; fruit large, round, sometimes variable in form; surface smooth, often polished yellow, covered and splashed bright red; flesh white, tender, juicy; flavor, subacid, not rich; quality only good; for market and cooking. November to spring.
- Bismarck.** Has been tested in Germany, Russia, France, England, Canada, and the United States. Is making a wonderful record for high quality, hardiness, and especially earliness of fruiting; 2-year-old trees seldom fail to produce fruit. Said to be extremely hardy and productive. Fruit golden-yellow, large and handsome; flesh tender, pleasant subacid, of distinct flavor; fine for dessert and superior for cooking. Will keep till March.
- Clayton.** Flesh yellow, breaking, subacid; very good for both kitchen and market. January to March.
- Gano.** Fruit is bright red on yellow ground, with no stripes; large, oblong, tapering to the eye; surface smooth, polished; dots minute; basin shallow, sometimes deep; eye large, cavity deep; brown in color; stem medium to long; core medium, seeds large. Tree very healthy, vigorous hardy; having stood 32° below zero without injury; a rapid grower; large and spreading in orchard; fruit-spurs numerous; shoots long, smooth, brown, with protuberances on the limbs like Ben Davis; an early, annual and prolific bearer. The tree much resembles Ben Davis. January to April.
- Gilpin (Little Red Romanite).** Tree very strong grower, with spreading, open top; fruit medium to small, round, flattened at the ends; surface smooth, deep red; flesh greenish yellow, firm, juicy; flavor rich, little if any acid; quality good; for cider and table. One of the longest keepers and most productive sorts. February to May.
- Grimes' Golden.** This is one of the most popular Apples in cultivation. Tree strong, thrifty grower, with spreading branches; fruit medium or above, cylindrical; regular surface, yellow veined, russeted; flesh yellow, firm, very fine-grained, juicy; flavor subacid; quality rich; for dessert, cooking and market.
- Huntsman.** Tree very upright thrifty grower and good bearer; fruit medium or above in size; color a rich yellow when fully ripe; shape round, considerably flattened at the ends; flesh pale yellow, somewhat coarse, juicy and rich, acid, very good; for table and market. November to March.



GRIMES' GOLDEN. (See page 6.)

WINTER APPLES, continued.

Hubbardston's Nonesuch. Tree vigorous grower, early bearer and productive; fruit large, fair, handsome, round; surface often uneven, yellow, covered with mixed red and broken stripes, presenting a rich brownish appearance; flavor acid, rich; quality very good; for cooking and table when fully ripe. October and November.

Jonathan. Tree of rather slender growth and spreading habit; fruit medium or above in size, round or oblong; surface very smooth, waxy yellow, often wholly covered with brilliant red; flesh whitish yellow, tender, very juicy; for dessert and cooking, also one of the most profitable market apples; quality best; a general favorite. October and November.

Lawver. Tree rapid grower; fruit medium or above in size; surface yellow, nearly covered with rich bright red; flavor subacid, good; for table and market. November till spring.

Loy. The original tree commenced bearing at 5 years old, bearing regular annual crops thereafter; fruit fully as large as Ben Davis, and resembles Willow Twig in form and color; a beautiful red on yellow ground, deepening into a rich bronze or russet, with minute black dots; small core, short stem; sprightly and pleasant flavor. December and January.

Mammoth Black Twig. Very large; dark red; vigorous grower. Was taken to the New Orleans Exposition and there named Mammoth Black Twig. Much interest was taken in the Apple during its exhibition there, and it is now a foremost Apple. The Winesap is its "parent." An improvement on the Winesap in being about one-fourth larger; quality as good, if not better than Winesap's. Mammoth Black Twig is dark red, almost black. The tree holds its fruit until matured. The original tree, over 50 years old, is still vigorous and bearing. The young trees show great vigor, come to bearing very young, and are very productive. November to May.

Mann. One of the newer sorts that promises to become popular. The tree is a strong, upright grower; fruit medium to large; roundish oblate; skin deep yellow when fully ripe, often with a shade of brownish red; flesh yellowish, half tender, juicy, mild, pleasant, subacid, good to very good. An early and annual bearer.

Minkler. Fruit medium; roundish oblate, slightly conical; pale greenish yellow, striped and splashed with two shades of red; flesh yellowish, compact, moderately juicy, mild, pleasant subacid; tree irregular grower, vigorous. January to April.

Missouri Pippin. Large, oblong, bright red, with numerous gray dots; very handsome and of fair quality; an early and very abundant bearer, and a very profitable orchard fruit; vigorous. December to March.

Northern Spy. Fruit large, conical, flattened; skin greenish yellow, striped and shaded with light and dark purplish crimson, and covered with a thin white bloom; flesh white, fine-grained, tender, very juicy, a pleasant subacid. November and December.



WINESAP.

WINTER APPLES, continued.

Rawle's Genet (Jeanaton). Tree good grower, not so large as some; fruit medium somewhat conic, regular; surface smooth, mixed and striped on yellow and green; flesh yellowish, crisp, fine-grained, juicy; flavor subacid; quality good, to very good; for dessert, kitchen, market and cider. November to spring.

Rhode Island Greening. Tree strong grower, crooked, spreading, productive; fruit large, varying in shape from round to flat; surface somewhat rough and russeted; color dull green, becoming yellow at maturity; flesh very yellow, juicy with rich acid flavor; quality very good; for table use. September to November.

Roman Stem. Tree moderate grower and productive; fruit medium, globular; surface smooth, yellow, sometimes blushed; flesh yellowish white, fine-grained and juicy; flavor mild subacid, rich; quality very good; for table use. October to December.

Rome Beauty. Tree thrifty, upright grower; fruit large to very large, roundish oblate, sometimes conical; surface smooth, pale yellow, striped and mixed with red; flavor subacid, not rich; quality good; desirable market fruit on account of its productiveness and fine appearance. November to January.

Smith's Cider. Tree strong grower, hardy, productive and an early bearer; fruit medium to large, round, sometimes lopsided; surface smooth, pale yellow, covered with mixed light red, splashed with carmine; flesh white, juicy; flavor acid to subacid, not rich; quality good for cooking; makes much cider, but most valuable for market.

Stark. Tree strong grower with spreading top, considered valuable as a long keeper and good market Apple; fruit large, greenish yellow, shaded and striped with red; flesh yellowish, moderately juicy, mild, subacid; quality good to best. November to spring.

Tallman Sweet. Tree hardy and strong grower; fruit medium, nearly round, somewhat flattened; surface smooth yellow; flavor sweet, rich; flesh yellow and firm; for baking and dessert. October to December.

Walbridge. Tree strong grower and productive, highly prized farther north for its extreme hardness; fruit medium size; color pale yellow, shaded with red; flesh crisp, tender and juicy; quality good. December to spring.

White Winter Pearmain. Tree moderate grower with spreading top; fruit medium, handsome when fair, but sometimes scabs badly; surface smooth, yellow, sometimes bronzed; flesh yellow, fine grained, tender, juicy; flavor mild, subacid, very rich; quality best; for table, kitchen, market. November to January.

Willow Twig. Tree good grower, branching and twiggy; good bearer; fruit globular; surface smooth, dull greenish yellow, marbled and striped dull red; flesh greenish yellow, juicy; flavor acid; quality only good; valuable for market and kitchen. November to spring.

WINTER APPLES, continued.

Winesap. An old favorite; one of the best. Tree vigorous, with spreading top; fruit medium, conical; surface smooth, bright or dark red on yellow ground; flavor rich, acid to subacid; quality nearly best; use for table, market, kitchen, cider. Very desirable on account of its productiveness and general good quality.

Yellow Bellflower. Tree strong grower, with large, spreading top; generally a poor bearer; fruit large to very large, oblong; surface smooth, light yellow, sometimes blushed; flesh yellow, fine-grained, juicy; flavor acid to subacid, rich; quality best; for table, kitchen, market. October and November.

York Imperial. Generally known and popular with many of our most experienced orchardists. Tree moderate grower and productive; fruit large, lopsided; surface smooth; color mixed bright red on yellow ground; flesh yellowish, tender, juicy; flavor mild subacid; quality very good; for market, table, kitchen. November till spring.

CRAB APPLES.

The improvements in the varieties of the Crab Apple have kept pace with the other kinds of fruit. A few years ago it was regarded fit only for cider, preserves and jelly, but there are varieties now that command a good price on the market for dessert purposes; especially is this the case with the Whitney. Besides being useful, these Apples are also very ornamental when in bloom, and when loaded with their highly colored fruits.

The following are the most valuable varieties:

Hewes. Tree an early and abundant bearer; fruit medium size, nearly round; color dull red streaked with greenish yellow; flesh fibrous, with an acid astringent flavor. One of the best for cider.

Hyslop. Tree a moderate grower, making a beautifully shaped, thrifty tree; bears young; fruit large, nearly round, flattened at the ends; skin smooth; color dark rich red on yellow ground; flavor very good. One of the most beautiful fruits grown.

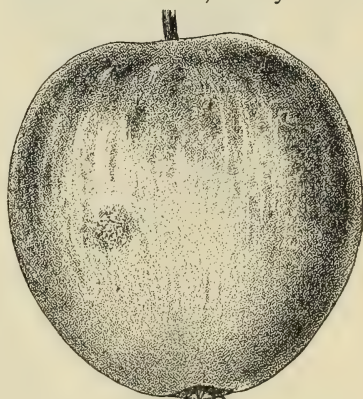
Montreal Beauty. Tree good grower, hardy and productive; fruit medium size, bright yellow shaded with red; flesh rich, firm, acid, very good. September.

Quaker Beauty. Tree one of the strongest growers, good bearer; quality good. October to January.

Transcendent. Tree strong grower, making a large beautiful tree; an early and abundant bearer, perhaps the most valuable of this class; fruit large, round, skin smooth, color rich yellow shaded with red; valuable for preserving and cooking; said to be one of the best for cider. August and September.

Whitney's No. 20. Tree thrifty, upright grower; fruit large, skin smooth, striped and splashed with carmine; flesh firm, juicy, of pleasant flavor. August.

Yellow Siberian. Tree moderate grower, hardy and productive; fruit small, mostly yellow. A beautiful little Crab Apple, valuable for cooking and preserving. Aug.



TRANSCENDENT.

Our Trees. Our stock of Fruit Trees has never been so complete in each division as it is at this time. Everything has been well and carefully grown.

Experience and Effort. It is no more than justice to ourselves to call attention to our 25 years of experience in growing nursery stock on an extensive scale. Our constant effort is to grow and furnish large, vigorous trees, and sorts that are hardy and productive. Our location is such that we are enabled to have the use of land that varies in character, so that with the aid of our experience we can plant each variety on soil to which it is naturally adapted. We thus secure a vigorous, healthy growth.

Price. It is our effort to supply the best of stock at a price consistent with its quality.

Pears.

The cultivation of this noble fruit is rapidly increasing as its value is appreciated. The range of varieties is such that, like apples, they can be had in good eating condition from August until early spring. The melting, juicy texture, the refined flavor, and the delicate aroma of the Pear, give it rank above all other fruits except the grape. But the Pear, like most things highly desirable and valuable, cannot be had without attention, labor and skill. The relative prices of the apple and Pear being about as one to ten, show at the same time the superior value of the latter, and the greater skill required to bring it to perfection.

There seems to be but one drawback to the profitable cultivation of the Pear, either as Standard or Dwarf, and that is the "blight," which brings ruin to so many trees, and for which there is no known remedy. But Pear trees do not all blight, as we can well testify when we visit any fruit market in their season. The good price of Pears, the productive habit of the trees, their comparative freedom from other diseases and from insect enemies, make this a desirable fruit to plant in a moderate way for market; and the high quality, and many ways in which it can be used to pleasure and profit, make the planting of a liberal supply for home use scarcely less than a necessity. Standard trees are budded or grafted on seedling Pear roots; Dwarf trees are budded on Angers quince roots.

Standard Pears should be planted 20 to 25 feet apart. They will grow on almost any soil, provided the subsoil is not too wet. Whenever this is the case the ground should be thoroughly under-drained. In every poor soil, a moderate top-dressing of manure, in the fall, will be of advantage. When a tree is assailed by the blight, cut off the part affected several inches below all appearance of the disease.

Dwarf Pears should be planted 8 or 10 feet apart. At the time of planting, and every spring thereafter, they should be thoroughly pruned, shortening in the current year's growth about one-half, aiming to form a round and well-proportioned head. The ground should be well cultivated, and enriched by a top-dressing of manure in the autumn, and well mulched in the spring. Pears grown on standards or dwarfs should never be allowed to ripen on the tree. Summer and autumn varieties should be gathered about ten days before they are ripe, and winter Pears before frost sets in.

Gathering Pears. In order to retain the juice and best flavor, summer Pears should be gathered at least ten days before they are ripe, and autumn Pears at least two weeks before; winter varieties as soon as the leaves begin to drop.

Thinning the Fruit. When the trees are heavily laden the fruit should be thinned when about one-third grown, else the fruit will be poor and the trees injured.

The letters, "D." and "S.," used in the descriptions of varieties, indicate favorable growth either as "Dwarfs" or "Standards," or both. Those designated as "moderate growers" are usually smaller trees.

Bartlett. S. and D. An old favorite, more generally known and highly esteemed than any other sort. Tree thrifty, upright grower; fruit large, irregular, pyramidal; skin thin and smooth, clear yellow, sometimes with faint blush on the sunny side; flesh white, fine grained, buttery, juicy, sweet; quality best. August and September.

Beurre de Anjou. S. and D. Tree good grower and bearer; fruit large, obtusely pyriform, sometimes nearly round; skin greenish, sprinkled with russet, sometimes shaded with dull crimson; flesh whitish, melting, juicy. Sept. to Nov.

Buffum. D. Tree an unusually strong grower; fruit small to medium; skin fair, deep yellow and bright red, sprinkled with russet dots; flesh white, buttery, juicy, sweet, excellent flavor. August and September.

Clapp's Favorite. S. and D. A splendid Pear, resembling Bartlett, ripening a few days earlier; a cross between that variety and Flemish Beauty. Fruit large; color yellowish green, marbled with red in the sun; vinous, melting, rich. One of the best summer Pears. August.



BARTLETT.

PEARS, continued.

Duchesse d'Angouleme. D. Sometimes planted as a standard, but an especial favorite as a dwarf. Tree vigorous and productive; fruit of the largest size, with an uneven, somewhat knobby surface; skin dull greenish yellow, a good deal streaked and spotted with russet; flesh white, buttery and very juicy, with a rich, excellent flavor. Sept. and Oct.

Flemish Beauty. S. Tree generally preferred as a Standard. Fruit large; skin a little rough, pale yellow, mostly covered with patches of russet, becoming reddish brown at maturity on the sunny side; flesh yellowish white, juicy and rich. September. Should be picked before it is fully ripe. One of the best.

Garber's Hybrid. S. Is kin to and very much like Kieffer, but is larger, of better quality, and ripens two or three weeks earlier; is as yellow as an orange. Immensely productive, bears at three years from the nursery. A valuable market fruit.

Howell. S. and D. Tree strong, free grower; fruit above medium size; skin light waxen yellow, often with a finely shaded cheek; flesh white, rather coarse, with a rich aromatic flavor. August and September.

Keiffer. S. Tree one of the strongest growers, with rich, glossy foliage; is not recommended as a Dwarf, but is highly recommended as less subject to blight than most others, though not in all cases free from blight. The Keiffer, by its good qualities of tree and fruit, has pushed its way to the front, so that it is to-day regarded as one of the most valuable kinds. Fruit large, golden-yellow, blushed with red in the sun; flesh slightly coarse, juicy, melting. Tree a great bearer; fruit especially valuable for cooking and market.

Lawrence. S. Tree of moderate growth; early and good bearer; fruit medium size, obtuse pyriform; skin fine, light yellow, very thickly covered with minute brown dots; flesh whitish, somewhat buttery, with rich, aromatic flavor. One of the best early winter Pears. October to December.

Lawson (Comet). D. and S. Fruit large for so early a Pear, the larger specimens measuring more than 9 inches in circumference; sufficiently firm to insure its being a good shipper; of brilliant crimson color on yellow ground; flesh crisp, juicy and pleasant, yet, like many of our most popular market fruits, not of highest quality, but what it lacks in flavor is offset by its charming exterior, being one of the most beautiful things imaginable in the way of a Pear. July.

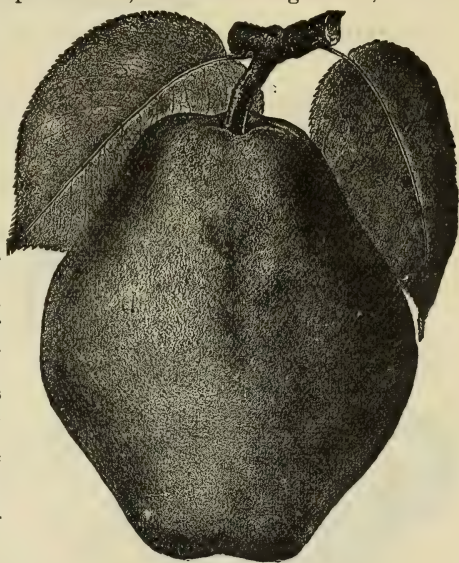
Louise Bonne de Jersey. D. Tree especially desirable as a Dwarf; vigorous grower, very productive; fruit medium size, pyriform, somewhat one-sided; skin smooth, glossy, pale green in shade but brownish red in the sun; flesh greenish white, very juicy, with a rich, excellent flavor. September.

Seckel. S. and D. Tree a moderate grower, said to be less subject to blight than most varieties. Fruit small to medium; regularly formed; skin dull, yellowish brown, with lively red cheek; flesh whitish, buttery, very juicy and melting, with a peculiarly rich, spicy flavor. A regular and abundant bearer. August to October.

Sheldon. S. Tree moderate grower and good bearer; fruit medium size, or above; roundish oval; skin yellow or greenish russet, with a richly shaded cheek; flesh melting, juicy, with a brisk, vinous flavor. September and October.

Vicar. D. Tree very strong grower; fruit large and long pyriform, somewhat one-sided; skin fair and smooth, pale yellow, sometimes with brownish cheek; flesh greenish white, generally juicy, sometimes buttery, with a good, sprightly flavor. October to December.

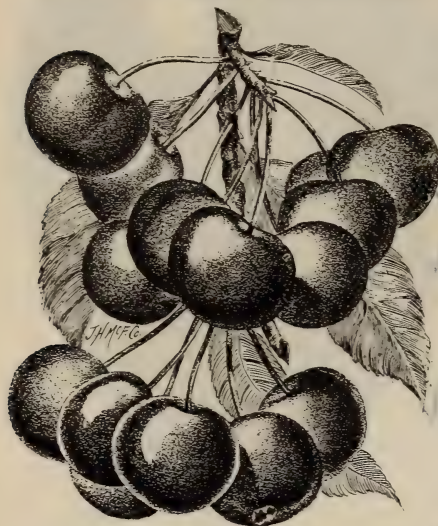
Wilder Early. S. Size medium; greenish yellow, with a brownish red cheek and numerous dots; flesh white, fine-grained, melting, excellent, about three weeks earlier than Bartlett.



KIEFFER.

Select Cherries.

Cherry culture has been a success when proper attention has been given to the selection of varieties and their culture. The hardy, thrifty varieties of the Morello type may be freely planted with confidence of profitable results. The Cherry tree should be planted in a naturally dry soil, or the soil should be well drained, so water may not remain near the roots for any considerable time. The most successful varieties in general cultivation are:



MONTMORENCY.

Black Tartarian. Very large; bright purplish black; half tender, juicy, very rich, excellent flavor; productive; vigorous. June 1.

Dyehouse. This variety partakes both of the Morello and Duke wood and fruit. A very early and sure bearer; ripens a week before Early Richmond, is of better quality and quite as productive. Free. May and June.

Early Richmond. Everywhere the most popular. Tree strong, thrifty grower, making a large symmetrical head; fruit medium size; dark red, melting, juicy; sprightly acid flavor, and especially valuable for cooking purposes; tree an early and abundant bearer. Season last of May and first of June.

English Morello. Tree moderate grower, hardy; an early and great bearer; the most valuable of the late varieties. Fruit large, round; skin dark red, becoming nearly black when fully ripe; flesh dark red, tender, juicy, and of a pleasant subacid flavor when fully ripe. July.

Gov. Wood. One of the best of all the sweet Cherries. The tree makes a fairly healthy growth. The same is true of Black Tartarian, Yellow Spanish, and many others of the same class.

Leib. A variety of recent introduction of the Morello class; said to be an unusually promising variety, ripening one week later than Early Richmond. Tree a fine, upright grower; fruit firm and juicy, with pleasant flavor.

May Duke. One of the best Cherries. Fruit roundish, obtuse, heart-shaped, growing in clusters, and when fully ripe of a rich, dark red; flesh reddish, tender and melting, very juicy, and when fully ripe of a rich, excellent flavor. May and June 1.

Montmorency. This is a Cherry of the Early Richmond class, some larger and about 10 days later; a strong, upright-growing tree and good bearer. By experienced horticulturists considered one of the most valuable varieties.

Olivet. Fruit large, globular, a shiny, deep red; ripens early in June, and retains its excellence longer than most others. A promising variety of recent introduction.

Ostheimer. A fine late Cherry from Germany. It has done well in the west, and promises well as a late profitable sort. Fruit large, dark liver-colored when fully ripe; juicy, rich, almost sweet; tree a slender grower, almost hardy.

Wragg. Originated in Iowa. Medium to large; long stem, dark purple when fully ripe. A variety well adapted for the high latitude and prairie regions of the northwest. July.

A. WILLIS, ESQ.

Dear Sir— I saw some of the trees that came from your Nursery. Would like an agency, to sell for you. Respectfully, A. H. GLIMS.

GAINESVILLE, Mo., Nov. 8, 1897.

MR. A. WILLIS.

Dear Sir— Those trees are here all right. Am well pleased with them, and will do you all the good I can. Now, I will take some pains to show my neighbors those trees.

Yours truly,

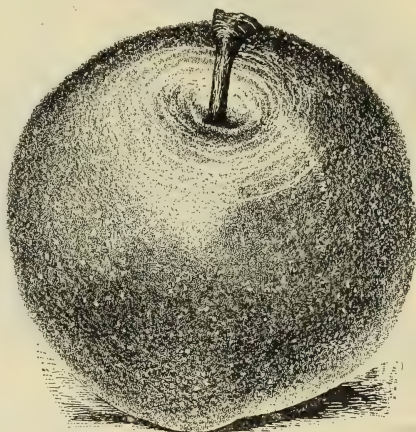
HENNESSY, OKLAHOMA, Nov. 12, 1897.

TAYLOR STEWART.

Plums.

Diseases and Enemies of the Plum. The prevalence of the disease of the Plum commonly known as the "Black Knot," which has so much discouraged people in the eastern states from giving to the Plum its merited share of attention, has as yet done little damage west of the Mississippi river, but its appearance should be guarded against, and its ravages prevented by keeping the trees in healthy condition, which is done by good cultivation, and removing the knot by amputation on its first appearance. Nothing is more favorable to the growth of the black fungus or knot than neglect. But the great enemy of the Plum is the insect known as the curculio, a small, dark brown beetle, which punctures the fruit in depositing its egg, from which is hatched the destructive grub that causes the fruit to drop prematurely and rot.

Two ways of destroying the curculio and saving the crop of fruit are recommended. (1) Spread a large sheet, prepared for the purpose, under the tree, and then jar the tree so as to shake down all fruits that have been stung, as well as all the curculios; destroy both insects and stung fruits. Begin to do this as soon as the blossoms fall, and keep it up daily, or at least tri-weekly, until the fruit is half grown. The morning is the best time to do this, when the insect is chilled and stupid. (2) The best remedy, and the one generally adopted now, is doubtless the spraying of the trees, directions for which are given on the 2nd page of cover of this Catalogue. If those who really desire to grow fine crops of this most delicious fruit will try either of these systems, and follow it up rigidly, they will be successful.



BURBANK.

Abundance (Lovett's). Medium to large; round, with pointed apex; skin greenish yellow ground, overlaid with dull purplish carmine; flesh light greenish yellow, juicy and sweet, with a touch of subacid and slight apricot flavor; cling; quality best; pit small; strong growing, upright, very prolific. Abundance has been, perhaps, more widely and extensively planted throughout the country than any other of the Japanese Plums. It is one of the most popular and profitable early sorts in the Plum-growing sections of the north.

Burbank. The best of all the Japan sorts of Plums; nearly globular, clear cherry-red with a thin lilac bloom; the flesh is a deep yellow color, very sweet, with a peculiar and very agreeable flavor. Tree vigorous, with strong, upright shoots, large, broad leaves; begins to bear usually at two years. It blooms late, and consequently is more likely to escape the late spring frosts.

Damson. Fruit small, oval; skin purple, covered with blue bloom; flesh melting and juicy, rather tart; separates partly from the stone. September.

German Prune. A large, long, oval variety, much esteemed for drying; color dark purple; of very agreeable flavor. September.

Hale. New. A very handsome, large, round-cordate Plum, usually lop-sided; orange, thinly overlaid with mottled red, so as to have a yellowish red appearance, or in well-colored specimens, deep cherry-red with yellow specks; flesh yellow, soft and juicy (yet a good keeper), with a very delicious, slightly acid peach flavor; skin somewhat sour; cling; very late.

Lombard. Perhaps the best of the European varieties now in cultivation. Tree vigorous, hardy and productive; fruit of medium size, roundish-oval, slightly flattened at the ends; skin delicate violet red, paler in shade; flesh deep yellow, juicy and pleasant. August.

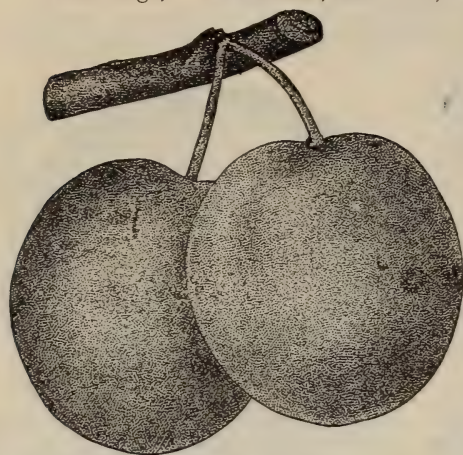
Marianna. The fruit of this variety is not equal to Golden Beauty or Wild Goose. It is said to be a seedling of the latter.

Miner. One of the improved native varieties. Fruit medium size, oblong, skin dark purplish; flesh red, soft, juicy, with vinous flavor; excellent for canning and cooking, and one of the best for market; tree hardy, vigorous and productive.

PLUMS. continued.

Prunus Simoni (Apricot Plum). This remarkable Plum came from northern China.

Fruit large, cinnamon red; flesh firm, rich, sweet, aromatic, has delicious pineapple flavor, mingled with that of the banana; tree an upright grower, with long-hanging leaves; distinct. July.



WILD GOOSE.

Satsuma. Fruit medium to large; broadly conical, with a blunt, short point; suture very deep; skin very dark and dull red all over, with greenish dots and an under-color of brown-red; firm, very juicy, quality good; cling; flesh so firm and solid as to enable it to be kept long in fine condition after being picked. We are each year more and more impressed with its great value as a market Plum. It is excellent for preserving, and a splendid keeper for the retail trade. It succeeds in many sections, and, where it does succeed, it is one of the most desirable.

Shipper's Pride. This Plum originated in northwestern New York, near the shore of Lake Ontario, and

has never been known to freeze back a particle in the severest winters. Size large; color dark purple; flesh firm and excellent. September 1.

Weaver. Fruit large; purple, with blue bloom of good quality; a constant and regular bearer; tree hardy and thrifty.

Wild Goose. The most popular Plum with some fruit growers. Tree a vigorous, upright grower; fruit medium to large, rich, golden yellow, richly shaded with red; flesh yellow, juicy; flavor rich and good.

Wickson. New. A remarkably handsome and very large deep maroon-red Plum of the Kelsey type. Long cordate, or oblong-pointed; flesh firm, deep amber-yellow, clinging to the small pit. There is apt to be a hollow space about the pit, as in Kelsey. Of first quality; an excellent keeper. Cross of Burbank with Kelsey, Burbank furnishing the seed.

APRICOTS.

A delicious fruit of the plum species, valuable for its earliness. It is liable to be attacked by curculio, and requires the same treatment as the plum; ripens in July and August.

Moorpark. One of the largest. Orange, with red cheek; firm, juicy, with a rich flavor; very productive. August.

Early Golden, or Dubois. Small, pale orange; juicy and sweet; hardy and productive. July 1.

The above varieties, while not reliable as regular bearers, have sometimes produced large crops of excellent fruit. The following Russian varieties, of recent introduction, are by many claimed to be very productive and valuable:

Alexander. Large, oblong; yellow, flecked with red; flavor sweet and delicate; one of the best. July 1.

Alexis. Origin Russia; tree strong, fruit large. Yellow, with red cheek; very sweet and of rich flavor. Bears well if given warm location. Mid-July.

J. L. Eudd. Large; cheek red; sweet, juicy, extra fine. The best late variety. August 1.

Gibb. Fruit medium size, yellow; ripens very early.

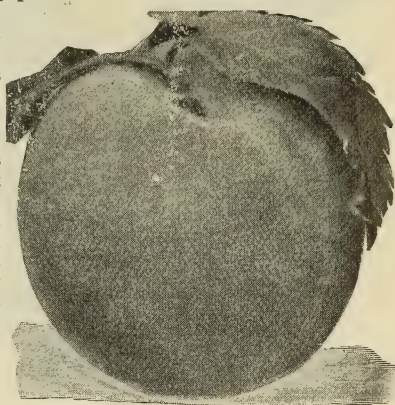
NECTARINES.

A most delicious, smooth-skinned fruit, which thrives wherever peaches will grow, but it is liable to be stung by the curculio, and requires the same treatment as the plum.

Select Peaches.

Peach trees should be planted 16 or 18 feet apart. To secure healthy, vigorous and fruitful trees and fine fruit, the following points should be well attended to:

(1) Keep the ground clean and mellow. (2) Keep the heads low—the trunk should not exceed 3 feet in height. (3) Give them an occasional dressing of wood ashes; soap-suds also are good. (4) Prune every spring, shortening the shoots of the previous year's growth. This keeps the head round, full and well furnished with bearing wood. Cut weak shoots back about one-half, and strong ones about one-third, but see that there is left a sufficient supply of fruit buds. Sickly and superfluous shoots should be cut out clean. The fruit is borne on wood of last season's growth, hence the necessity of keeping up a good supply of vigorous annual shoots all over the tree. Young trees should be well mulched every spring.



FOSTER. (See page 16)

Arkansas Traveler. Said to ripen earlier than Amsden, of which it is a seedling; fully equal to it in every respect.

Alexander Early. Large, well-grown specimens measuring 8 inches in circumference; handsome and regular in form, with deep maroon shade, covered with the richest tint of crimson; rich and good in quality, with a vinous flavor; adheres to the stone; should remain on the tree until fully ripe. Late June.

Amsden. Fruit medium size; color red, beautifully shaded and mottled with a very dark red, nearly covering the greenish white ground; flesh white, with a delicious flavor when ripened on the tree. June 15 to 30.

Blood Cling. A variety of the old Indian Peach. Fruit very large, form nearly round, skin dark, purplish red, flesh very red; juicy and good. September and October.

Bokara No. 3. Raised from seed received from Bokara, Asia. The hardiest Peach known; has been in bearing for several years in central Iowa, and produced fruit after 28 degrees below zero. Fruit measured over 7 inches in circumference. Yellow, with red cheek; skin tough, flesh of good quality; a perfect frees'one. Prof. Budd says: "They are 30 per cent harder than the old strain of Peaches." September 1.

The Champion. Fruit large, beautiful in appearance; flavor delicious, sweet, rich and juicy; skin creamy white, with red cheek; freestone. The peculiarity of this great acquisition is its hardness. It stood a temperature of 18° below zero in the winter of 1887-8, and produced an abundant crop the following season; and again in 1890 produced a full crop, when the Peach crop was a universal failure. August 15.

Crawford's Early. This beautiful yellow Peach is highly esteemed for market purposes. Fruit very large, oblong; skin yellow, with fine red cheek; flesh yellow, juicy, sweet and excellent; productive; free. July 1.

Crawford's Late. Fruit of the largest size; skin yellow, or greenish yellow, with dull red cheek; flesh yellow; productive; one of the best; free. Late August and September.

Crosby. Medium size, roundish, with distinct seam on blossom end; skin light golden yellow and very downy; flesh bright yellow and rather firm. Ripens between Early and Late Crawford. Tree of rather dwarfish habit. Has won special favor on account of great hardness. A recent introduction, that has attracted very wide attention on account of its disposition to produce good crops in "off years," when other varieties usually fail.

Elberta. Very large and well colored; all things considered, the finest yellow freestone in cultivation; no one can go amiss by planting it. Fruit perfectly free from rot; one of the most successful shipping varieties. August 20.

Family Favorite. Free; seedling of Chinese Cling, of better color; clear, waxen complexion, with blush; large, firm, valuable for shipping, canning or drying; prolific. Late July.

PEACHES, continued.

Greensboro. The largest and most beautifully colored of all the early varieties. Double the size of Alexander, ripening at same time. Parts clear from seed when fully ripe. Flesh white, juicy and good.



HEATH CLING.

Globe. An improvement on Crawford's Late. Fruit large, globular, rich golden yellow, with a red blush; flesh yellow, juicy. August.

Early York. Medium size; greenish white, covered in the sun with dull red; flesh greenish white, very tender.

Foster. Large; deep orange red, becoming very dark red on the sunny side; flesh yellow, very rich and juicy, with subacid flavor; earlier than Early Crawford; very handsome. The originator says that the fruit always sells at a fancy price. (See cut, page 15.)

Hale's Early. A vigorous, healthy tree, and an early, abundant bearer, ripening its fruit a week or ten days earlier than any of the old varieties. Fruit medium size; skin clear, smooth, white, delicately marbled with bright and dark

red on the sunny side; flesh very melting, juicy and high flavored.

Heath Cling. Downing calls this Peach "The most successful and delicious of all late clingstones." Tree vigorous and moderately productive; fruit very large, and narrowing to both ends; skin downy, cream colored, white with faint blush in the sun; flesh greenish white, very tender and melting, juicy, with the richest, highest flavor; quality very best. September.

Lemon, or Pineapple Cling. Large, oblong having a swollen point similar to a lemon; skin yellow, with red cheek; flesh yellow, firm, juicy and sweet; tree a fine grower. August.

Lemon Free. Almost lemon shaped, pointed at the apex; color a pale lemon yellow when ripe. Quite large, the finest specimens measuring over 12 inches in circumference; of excellent quality; ripens after Late Crawford; is immensely productive.

Mountain Rose. A freestone of medium size. Has a good reputation. White, mottled with red; flesh white, stained at the stone; sweet and juicy. Good for all purposes, especially as an early market Peach. Mid-August.

Oldmixon Cling. Large, pale yellow, with red cheek; juicy, rich and high-flavored; one of the best clingstone Peaches. September.

Oldmixon Free. Large, pale yellow, with a deep red cheek; tender, rich and good; one of the best. September 1 to 15.

Salway. Fruit large, roundish, deep yellow, with a deep, marbled brownish red cheek; flesh yellow, firm, juicy, rich and sugary. A new English variety, and a late showy market sort. Freestone. September 30.

Smock Free. Fruit large, oval; skin orange yellow, mottled with red. A good market sort. September 15.

Sneed. The most remarkable early Peach yet introduced. It ripens a week to ten days earlier than Alexander, and belongs to an entirely different type from Alexander and Hale's Early; very distinct in tree and fruit, belonging to the Chinese Cling type; size medium; color white, with flush on cheek.

Stump the World. Very large, roundish; skin white, with a bright red cheek; flesh white, juicy and good. Late September.

Triumph. Ripens with Alexander, blooms late, has large flowers, and is a sure and abundant bearer; the tree makes a very strong growth, bears young and yields abundantly. The fruit is of large size, with a very small pit; skin yellow, nearly covered with red, dark crimson in the sun; flesh bright yellow, free when fully ripe, of excellent flavor; the fruit is a good shipper, and in quality is far superior to anything that ripens anywhere near its season.

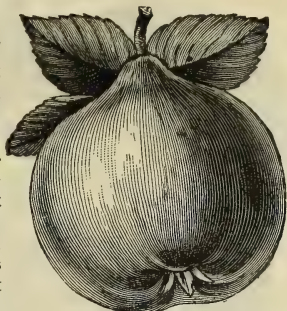
Wager. Large; yellow, splashed with red; flesh yellow, juicy and of good flavor. While high excellence in quality cannot be claimed for Wager, the tree has such remarkable vigor and vitality that it is not only an abundant, but an unusually regular bearer. Freestone. August 31.

SELECT QUINCES.

The Quince is attracting a great deal of attention as a market fruit. The tree is hardy and compact in growth, requiring but little space ; productive, gives regular crops, and comes early into bearing. The fruit is much sought after for canning for winter use. When put up in the proportion of about one quart of quinces to four of other fruit, it imparts to them a most delicious flavor. It flourishes in any good garden soil kept mellow and well enriched. Prune off all the dead and surplus branches, and thin out the fruit if bearing too freely.

Apple or Orange. Large, roundish, bright golden-yellow ; cooks tender and is of excellent flavor ; valuable for preserves or flavoring ; very productive ; most popular and extensively cultivated variety. October.

Champion. A new variety, originated in Connecticut, where it is exciting marked attention. The tree is described as a strong grower, a prolific and constant bearer ; fruit averaging larger than the Orange, more oval in shape, quality equally fine, and a longer keeper.



ORANGE QUINCE.

Grapes.

Almost every one can find room for from six to a dozen or more Grapevines. They can be trained up the side of any building or over a garden fence, but the best and cheapest way to grow them, either in small or large quantities, is on a wire trellis.

Work the ground deep for Grape vines, and plant a little deeper than they were in the nursery. Make the rows 8 feet apart and plant vines 6 to 8 feet apart in the rows. Some of the tender varieties would be benefited by laying the vines flat on the ground during winter, with a light covering of earth or litter.

Agawam. Red, large, round, early, and of great vigor of growth ; rich, high, peculiar aromatic flavor. Considered by Mr. Rogers as the best of his strictly red hybrids.

Campbell's Early. A seedling of Moore's Early, crossed with pollen of a choice seedling that resulted from a cross of Muscat Hamburg on Belvidere. It is regarded by Mr. Campbell as the finest Grape in all respects that he has produced in forty years of experimenting. Cluster large, shouldered, moderately compact ; stem large, long, strong ; berry large, nearly round, slightly elongated ; black, with profuse, light blue bloom ; skin thin, with slight pulpiness ; flesh translucent, very tender and very juicy ; flavor sweet, rich aromatic ; aroma delicate, not foxy ; quality best for both market and dessert. Season early.

Catawba. Well known as the great wine Grape of Ohio, Kentucky, etc. Bunches large and loose ; berries large, of a coppery red color, becoming purplish when well ripened ; two weeks later than Isabella. Where not subject to rot still holds its own as one of the best varieties.

Concord. A popular variety, universally healthy, vigorous and productive ; flesh somewhat buttery, moderately juicy and sweet ; bunch large, nearly black, with bloom ; early. Much is said about some Grape to take the place of the Concord, its poor quality, etc., but the fact is generally recognized that the man who plants and cares for Concord vines will get bountiful crops of Grapes, and if they are allowed to remain on the vines until fully mature the quality is excellent. No other Grape can be planted with the confidence that is felt in the Concord.



CONCORD.

Delaware. Holds its own as one of the finest Grapes. Bunches small, compact, shouldered ; berries rather small, round ; skin thin, light red ; flesh very juicy without any hard pulp, with an exceedingly sweet, spicy and delicious flavor ; vines moderately vigorous, very hardy and productive ; ripens two weeks before Isabella.

Dracut Amber. Vine strong, hardy and productive ; bunch medium in size ; berries large, round ; skin thick, pale red ; valuable for market and cooking.

GRAPES, continued.

Early Ohio. Briefly, its points of merit are extreme earliness, hardness and productiveness; the berry is black, smaller than Concord, firm in texture; the vine is thrifty, a strong, rapid grower and an abundant bearer. Its exceeding earliness makes it a decided acquisition.



NIAGARA.

Goethe. A fine, light-colored variety, tinged and nearly covered with red when fully ripe. It has more the flavor of its foreign parent than any of the others, being tender to the center; bunch and berry large; ripens with Catawba.

Hartford Prolific. Bunches rather large; berries large, globular, almost black, covered with a beautiful bloom; flesh sweet and juicy; ripens two weeks before Isabella; valuable for its hardness, abundant bearing and early maturity.

Ives' Seedling. Vine healthy, strong grower; fruit bunch medium to large; flesh sweet and juicy, but foxy and puffy. A desirable market Grape on account of its good keeping qualities; it colors early, but ripens later than Concord.

which it resembles in growth and hardness. Bunch of good size, and berry large; pale green or light color; sweet, juicy and sprightly.

Moore's Early. Seedling of Concord, combining the vigor, health and productiveness of Concord; 10 days earlier than Hartford; in quality hardly to be distinguished from Concord. This Grape has taken the first prize at the Massachusetts Horticultural Society each year since 1872, when first exhibited, and the \$60 prize of same society for the best new seedling in fall, 1877. A valuable acquisition. Bunch large; berries very large, black.

Niagara. Bunch medium to large, compact, sometimes shouldered, being large, roundish uniform; skin thin but tough, pale green at first, changing to pale yellow when fully ripe, with a thin, whitish bloom; flesh slightly pulpy, tender, sweet before it is fully ripe; it has a musky odor, which disappears when fully ripe; vine vigorous, healthy and productive; ripens with Concord.

Pocklington. Seedling from Concord. The vine is thoroughly hardy, both in wood and foliage; is a strong grower, never mildews in vine or foliage. This is called a white Grape, but the fruit is a light golden yellow, clear, juicy and sweet to the center, with little or no pulp; bunches very large, sometimes shouldered; berries round, very large and thickly set; quality, when fully ripe, superior to the Concord. Ripens with the Concord.

Salem. Bunch large and compact; berry large, of a light chestnut or Catawba color, thick skinned, perfectly free from hard pulp; very sweet and sprightly, with a most exquisite aromatic flavor; as early as Delaware, having never failed to ripen in the most unfavorable season for the last 6 years; keeps well.

Worden. Seedling of Concord, which it greatly resembles in appearance and flavor, but the berries are larger. The fruit is said to be better flavored, and to ripen several days earlier. These qualities will give it the foremost rank among native Grapes.

Small Fruits.

These may everywhere be successfully cultivated, and yield large returns at comparatively small expense. They should have a place in every garden. Since the introduction of self-sealing jars and cans, they can be had throughout the year almost as fresh as when gathered. If any thoughtful farmer will figure up the returns from a berry patch as compared with one of his heavy crops by area, he will be convinced as to the profits.

STRAWBERRIES.

The ground should be prepared the same as for other crops; if not already rich, make it so by manuring. Mark out the rows the desired width, and set plants 12 to 18 inches apart in the rows. If set 12 inches apart in rows 4 feet apart, an acre will require 10,890 plants, same as if set 16 inches, in rows 3 feet apart. In early winter, when the ground is frozen, cover the whole with long straw, which should not be removed from the plants in the spring, but allowed to remain on the ground as a mulch, to keep the berries clean the next summer.

Varieties marked P. fertilize with Charles Downing, or Jessie, or other staminate variety.

Beder Wood. Large, roundish conical; bright scarlet, moderately firm, fair quality; plant vigorous and very productive. A very valuable early sort for home use or near market, following Michel's Early.

Bubach No. 5. P. A wonderful berry in vigor of plant and yield of fruit even under careless culture. The fruit is in many instances enormous, and the average is large and handsome. It is exceedingly productive and very valuable for a nearby market. Midseason.

Captain Jack. A most vigorous grower, healthy and productive. Berries large, handsome and solid.

Charles Downing. Large, conical, crimson; flesh firm, of fine flavor and good quality; plant healthy, vigorous and productive. Best fertilizer for Windsor Chief.

Crescent. P. Medium, conical, bright scarlet, very uniform in size. A beautiful berry, beginning to ripen with Wilson's Albany, and continuing in fruit longer. Has been shipped 200 miles without changing color. It is astonishing in its productiveness. The plants are wonderful in growth, taking entire possession of the ground to the exclusion of weeds and grass. At home on all soils.

Cumberland Triumph. Berries immense; of fine form and flavor. Plant very vigorous and productive.

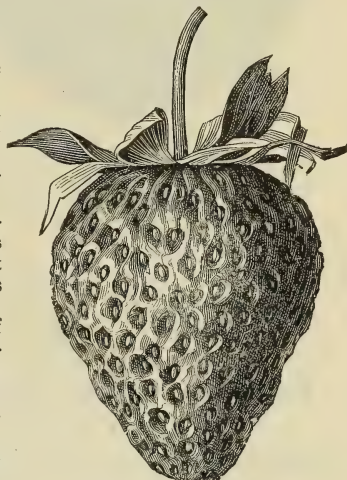
Glendale. Fruit large, very firm; quality best for canning. Plant strong grower, and as productive as Charles Downing.

Greenville. P. Resembles Bubach, but is firmer and a better shipper; uniform in size, regular outline, excellent quality. Plant a strong grower, free from rust, and one of the most productive.

Haverland. P. Profitable by reason of its productiveness and earliness, but is hardly firm enough for distant shipment; requires deep, heavy soil; plant exceedingly vigorous and healthy; fruit large, handsome and good, though not of the best quality; rather long in shape, and of a bright, glossy crimson; early.

Kentucky. Very large, bright scarlet, sweet and delicious; ripens about a week later than most varieties; fruit firm; a fine market sort. Plant hardy and very productive; valuable for the late market.

Jessie. A stout, luxuriant grower; foliage light green, large and clean; the berry is very large, continuing large to the last picking; it is of beautiful color, fine quality, good form, quite firm, having been shipped 600 miles in good condition. (See cut, page 20.)



CHARLES DOWNING.

STRAWBERRIES, continued.

Miner's Prolific. One of the handsomest Strawberries, rich in quality, and when the season is favorable very productive.



JESSIE. (See page 19)

to throw the strength into the stalk when the bearing season is over. Tender varieties should be protected during the winter in the northern states.

Robinson. Fruit is large and perfect, firm, and a good shipper. The plant is a good grower and fertilizer; prolific.

Sharpless. Large; of delicious flavor; good bearer; bright color. Specimens exhibited weighed 1½ ounces, and measured 7 inches in circumference.

Warfield. Possesses beauty, firmness, earliness, good flavor, productiveness. Is not immensely large, but quite satisfactory.

Plant Strawberries in the Spring.

RASPBERRIES.

One of the choicest of the small fruits, coming into use as the Strawberry season ends. Nothing can be more refreshing than a dish of Raspberries. Should be planted 4 x 6 feet apart in a deep soil; one that will retain moisture well in a drouth. In training, allow only a few canes to grow from each plant, cutting away all suckers, for bearing. All old canes should be removed.

BLACKCAPS.

Gregg. This is decidedly the largest and most prolific blackcap we have seen, and the most popular Raspberry in cultivation.

Hopkins. Hardy and productive; a strong, vigorous sort. Fruit good size, glossy black and good quality. Medium early; more desirable for shipping than any blackcap except Gregg.

Kansas. It is healthy, vigorous and not subject to leaf blight; produces strong, healthy tips; fruit large, as fine a berry as Gregg and equally as good a shipper; ripens just after Souhegan; very prolific.

Mammoth Cluster, or McCormick. The bush is strong, upright grower; foliage a rich, dark green; fruit large, and holds out large to the very last picking; black, with a rich purple bloom; very juicy, high-flavored and delicious; perfectly hardy; ships well to distant markets.

Souhegan. The earliest and leading market sort among the blackcaps. Canes vigorous, strong and hardy, with healthy foliage; fruit good size, jet black, firm, pleasant flavor, valuable for market.

RED VARIETIES.

Cuthbert. One of the few kinds that may be pronounced perfectly hardy. The canes are tall and vigorous and enormously productive. Berries very large; conical; rich crimson, very handsome, and so firm they can be shipped hundreds of miles by rail without injury. Flavor rich, luscious, best; begins to ripen moderately early and holds until all others are gone.

Turner. A beautiful red berry of fine size and excellent quality; said to be the hardiest and most productive variety known.



KANSAS.

BLACKBERRIES.

These require the same kind of soil and treatment as Raspberries, except that they should be planted in rows 8 feet wide and 4 feet apart in the row. For self-sustaining bushes, clip off the points of the growing canes as soon as the plants are about 4 feet high, and repeat the operation several times, until they assume the form of a bush. Mulching is of great advantage to both raspberries and Blackberries.

Ancient Briton. Upright grower; berry large. An old and reliable variety of Wales, which should be sufficient guarantee of its hardiness; fruit large, sweet, little to no core. Ripens about midseason.

Early Harvest. This is the earliest of Blackberries, ripening with Mammoth Cluster raspberry. The fruit is of medium size, glossy black and firmer than any other Blackberry known.

Erie. Cane strong; berry large, almost round, of rich quality, handsome and firm. Plant hardy, vigorous and productive, bending its canes with fruit.

Kittatinny. Begins to ripen soon after Wilson's Early, and continues longer in bearing; is ripe as soon as black, and is much earlier, sweeter and better in all respects than Lawton, which it resembles in plant and fruit. The great fault of Kittatinny is the rust, which sometimes will destroy a whole plantation. When it escapes rust the best Blackberry known.

Snyder. Extremely hardy, enormously productive; fruit of medium size, with no hard, sour core; half as many thorns as Lawton or Kittatinny, and they are straight and short; most prolific Blackberry grown; comparatively free from rust; a safe and profitable berry to plant. Has been a standard market berry over a wide range of country for years. Succeeds and yields well everywhere; is a great favorite north for its hardiness.

Taylor, or Taylor's Prolific. Strong, upright grower; berry large, late; should be planted with an early for a succession of fruit. The strong point with Taylor is endurance and heavy crops. Very successful in bleak New Hampshire and Canada. The berry is very sweet and rich in flavor. Can furnish fine Taylor plants grown from cuttings. These have more roots, are stronger, and bring fruit quickly.



EARLY HARVEST
BLACKBERRY.

LUCRETIA DEWBERRY.

Fruit very large, luscious and handsome; perfectly hardy, a strong grower and enormously productive; a superb and very profitable market fruit. The vines should be allowed to remain on the ground during winter, and be staked up early in the spring.



LUCRETIA DEWBERRY. PERFECTLY HARDY AND ENORMOUSLY PRODUCTIVE.

CURRENTS.

Currents should be planted 4 feet apart in the garden. Sawdust or tan-bark should be used as mulch. The Currant flourishes in almost every kind of soil, but to



have the fruit in perfection, plant in rich, deep soil, and give good annual pruning and cultivation. When plants are grown as stools or bushes, the older and feeble suckers should be cut out. When grown in the form of a tree, with single stem, the bearing wood should be thinned, and the stem and root kept free of suckers.

Cherry. The largest of all red Currants; berries sometimes more than half an inch in diameter: bunches short; plant very vigorous and productive when grown on good soils and well cultivated.

Fay's Prolific. For size, beauty and productiveness the most remarkable red Currant ever grown. A. M. Purdy, of Palmyra, N. Y., says: "We counted over thirty large clusters on a branch received by us, measuring 14 inches in length. The berry is fully equal to Cherry Currant, while the flavor is much superior. The stems are double the length on an average, and the fruit hangs on well, never dropping, as in other Currants. We measured bunches 4 and 6 inches long."

North Star. The average length of the bunches is 4 inches; 30 berries from a single bunch, placed side by side, touching, covered a line 12 inches in length. The fruit is superior, very sweet and rich in quality, firm, a good market berry; desirable as a dessert fruit in the natural state and unequalled for jelly.

Red Dutch. An old, highly esteemed sort, hardy and reliable; fruit medium size, bright red and of best quality. It is well to plant some high-priced new kind if you want a pet, but if you want Currants, plant Red Dutch.

White Grape. Very large, yellowish white, sweet, or very mild acid; excellent for the table; the finest of the white sorts; very distinct from White Dutch, having a low, spreading habit and dark green foliage; very productive.

GOOSEBERRIES.

The bushes should be planted the same distance apart as currants. They should be annually and rather severely pruned by thinning all feeble and crowded branches. Mulch the same as currants.

Downing. Fruit larger than Houghton; roundish, light green, with distinct veins; skin smooth; flesh rather soft, juicy and very good. Vigorous and productive.

Houghton's Seedling. A medium-sized American variety, which bears abundant and regular crops, and never mildews; fruit smooth, red, tender and very good; very valuable. No variety has yet been found that gives better satisfaction.

Industry. The best English Gooseberry yet introduced; of vigorous, upright growth; a greater cropper than any known variety; berries of the largest size and of most excellent flavor, both pleasant and rich; color, when fully ripe, dark red.

Smith's Improved. Large, oval, light green, with bloom; flesh moderately firm, sweet and good; vigorous grower.



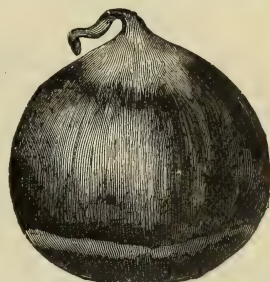
DOWNING GOOSEBERRY.

DWARF SERVICE OR JUNEBOY.

Grows 4 to 6 feet high, branches out from the ground like currants; resembles the common service or Juneberry in leaf and fruit, but the fruit is larger, and in color almost black, beginning to bear the second year after transplanting, and bears profusely.

CHESTNUT, AMERICAN SWEET.

Among our large collection of ornamental native forest trees the Chestnut is unrivalled for its beauty. When grown in the open ground, it assumes an elegant symmetrical form. The foliage is rich, glossy and healthy, and the whole tree is covered in early Summer with long, pendent, tassel-like blossoms. It is especially desirable for its nuts, which it bears profusely a few years after transplanting. The Chestnut thrives well on any soil except a wet one. When nursery grown, bears transplanting well, and once established grows rapidly, and soon comes into bearing.



CHESTNUT

DOWNING'S EVERBEARING MULBERRY.

Produced from seed of the Multicaulis. Tree very vigorous and productive, continuing in bearing a long time; fruit $1\frac{1}{4}$ inches long and $\frac{3}{8}$ of an inch in diameter; color blue-black; flesh juicy, rich, sugary, with a sprightly vinous flavor.

CIONS AND BUDS.

Can be supplied of most varieties of fruits, etc. Prices given on application.

ASPARAGUS.

To make a 'good Asparagus bed, the plants may be set in fall or early spring. Prepare a piece of fine, loamy soil, to which has been added a liberal dressing of good manure. Select 2-year or strong 1-year old plants, and for a garden set in rows 18 to 20 inches apart, with plants 10 to 12 inches apart in the row. Make a small mound of the soil, over which the roots should be evenly spread, so that the crown, when covered, shall be three inches below the surface of the ground. If planted in fall, the whole bed should be covered before winter sets in with two or three inches of coarse stable manure, which may be lightly forked in between the rows as soon as the ground is softened in the spring.

Conover's Colossal. A mammoth variety of vigorous growth, sending up from 15 to 20 sprouts, from 1 to 2 inches in diameter, each year; color deep green; crown very close.

RHUBARB OR PIE PLANT.

This deserves to be ranked among the best early vegetables in the garden. It affords the earliest material for pies and tarts, continues long in use, and is valuable for canning. Make the border very rich and deep for this plant.

Linnæus. Large, early, tender and fine. The very best of all.



ASPARAGUS.

MR. E. KELLY, of ST. JOSEPH, MISSOURI, writes under date of November 14, 1897: "I have another man; saw him to-day. He wants 15,000 trees, and says he will give another order. These sales are all cash to you as soon as the trees are planted. Now I, of course, have my orchard for a sample." This orchard was 2,000 apple and a lot of other trees planted for Mr. Kelly in the spring of 1897, near St. Joseph, Mo.

Ornamental Department.

The list of Ornamental trees, shrubs, vines and plants that we offer will be found to comprise a sufficient number of kinds that are really valuable, so that our customers may from the list offered secure such a variety as will give full satisfaction. The long list of fancy sorts, mere duplication, is not presented.

ORNAMENTAL TREES.

Windbreaks of trees, more especially if they are evergreen, besides being ornamental make the dwelling warmer, diminishing to no inconsiderable extent the consumption of fuel. They also make the out-buildings warmer for stock by night, and the yard by day, imparting comfort to the animals, and saving a large amount of food.



CUT-LEAVED WEEPING BIRCH.

ASH, White. A rapid growing native tree of fine symmetrical outline; a valuable street or park tree, and should be extensively planted for timber, as the demand for it is very great for the manufacture of implements, railway cars, furniture, etc.

BIRCH, Cut-leaved Weeping. An elegant, erect tree, with slender, drooping branches, and fine cut leaves. A magnificent variety and worthy of a place on every lawn. We know of no more beautiful tree than the Cut-leaved Weeping Birch.

BEECH, Purple-leaved (*Fagus purpurea*). A remarkable species with deep purple foliage, changing to greenish purple in autumn. A very striking contrast with other ornamental trees.

BOX ELDER. A fine, rapid growing tree, with handsome light green pinnated foliage and spreading head. Very hardy; excellent for avenues.

CATALPA. A native of the south. A rapid-growing, beautiful tree, with very large

heart-shaped leaves and pyramidal clusters of white and purple flowers a foot long. Blooms late in July.

ELM, American White. The noble, spreading, drooping tree of our own woods. One of the grandest of park or street trees.

Pendula (Camperdown Elm). Its vigorous, irregular branches have a uniform weeping habit, and overlap so regularly that a compact roof-like head is formed. The finest Weeping Elm.

HORSE CHESTNUT, Common, or White-flowering. A very beautiful, well-known tree, with round, dense head, dark green foliage, and an abundance of showy flowers in early spring.

LINDEN, American. A rapid-growing, beautiful native tree, with very large leaves and fragrant flowers.

LOCUST, Black or Yellow (*Robinia*). A large native tree of rapid growth, valuable for shade as well as quite ornamental. The very fragrant white or yellowish flowers are disposed in long pendulous racemes, and appear in June.

Honey Locust, or Three-Thorned Acacia (*Gleditsia triacanthos*). A rapid-growing tree, with delicate foliage of a beautiful fresh, lively green, and strong thorns; makes an exceedingly handsome, impenetrable hedge.

ORNAMENTAL TREES, continued.

MAPLE, Silver-leaved. Of excellent rapid growth, and desirable for immediate effect.

Sugar or Rock. For stately form and fine foliage justly ranked among the very best trees for lawn and avenue.

MOUNTAIN ASH, European. A fine, hardy tree; head dense and regular, covered from July till winter with large clusters of bright scarlet berries.

Oak-leaved. A variety with large, hoary, lobed leaves; distinct and fine.

Weeping (*Pyrus*). A beautiful tree, with straggling, weeping branches; makes a fine tree for the lawn; suitable for covering arbors.

MULBERRY, Teas' Weeping Russian (*M. Sibirica pendula*). A graceful and beautiful, hardy tree, forming a perfect umbrella-shaped head, with long, slender, willowy branches, drooping to the ground and gracefully swaying in the wind. Foliage small, lobed and of a delightful, fresh, glossy green. The tree is exceedingly hardy, of rapid growth and abundant foliage. Admirably adapted to cemetery planting and susceptible of being trained into almost any shape.

White (*Morus alba*). A small tree of slender but very rapid growth; produces fruit of pinkish white color.

Russian. Similar to the white; very hardy.

PLUM, Purple-leaved (*Prunus Pissardii*).

Very remarkable and beautiful, with black bark and dark purple leaves, remaining very constant in color until late in the fall. The new growth is especially bright; the fruit is also red and said to be very good.



SILVER-LEAVED MAPLE.

TULIP TREE. A native tree of the Magnolia order. Remarkable for its symmetry, rich glossy foliage, regularly distributed branches and large tulip-like flowers.

WILLOW, Weeping (*Salix Babylonica*). Our common and well-known tree.

American Weeping. An American dwarf, slender-branched species. Grafted 5 or 6 feet high it makes one of the most ornamental of small weeping trees; harder than *Babylonica*.

Kilmarnock Weeping. An exceedingly graceful tree, with large, glossy leaves; one of the finest of this class of trees. Very hardy. The branches form a close, thick, drooping head around a pillar-like stem. Trees of this class have much the same effect as statuary on a lawn, but are more beautiful.

KILMARNOCK WEEPING
WILLOW.

WILLIS' NURSERIES, OTTAWA, KANSAS.

Gentlemen—I would like to sell nursery stock for you this fall and winter for spring delivery. I am an old hand at the business. I think an agent can do well in this locality. I got a bill of trees from you this fall and am well pleased with them.

Yours,

B. C. KUDER.

WILSON, KANSAS, November 8, 1897.

MR. A. WILLIS, OTTAWA, KANSAS.

Dear Sir—Yours of August 26 at hand. Considering the hot, dry summer, my trees have done remarkably well.

Yours truly,

JOSEPH GUY.

These trees were sent to Tribune, Kansas, and planted by Mr. Guy in the spring of 1897.

TRIBUNE, KANSAS, September 1, 1897.

EVERGREENS.

ARBORVITÆ, American. This plant is, all things considered, the finest Evergreen for hedges. It is very hardy and easily transplanted, few plants failing if properly transplanted specimens are obtained and proper care given in their management. It grows rapidly, and with little care, or rather by easy management, it soon forms a most beautiful hedge, very dense, and perfectly impervious to the sight. It is never adapted to turn stock, but it forms a most desirable and ornamental screen to divide the lawn from other grounds.

Siberian. The best of the genus. Exceedingly hardy, keeping color well in winter; growth compact and pyramidal; makes an elegant lawn tree; of great value for ornamental screens and hedges.

JUNIPER, Irish. Very erect and tapering in its growth, forming a column of deep green foliage. A pretty little tree or shrub, and a general favorite for its beauty and hardness.

PINE, Austrian or Black. A remarkably robust, hardy, spreading tree; leaves long, stiff; dark green; growth rapid; valuable for this country.

Scotch. Fine, robust, rapid-growing, with stout, erect shoots, and silver-green foliage.

White. The most ornamental of all our native Pines. Foliage light, delicate or silvery green; flourishes in the poorest soils.

RED CEDAR. About the only Evergreen indigenous to Kansas. Makes a fine ornamental hedge plant; hardy and reliable.

SPRUCE, American White (*Abies alba*). A tall tree, with compact branches and light green foliage.

Colorado Blue (*Picea pungens*). This species has been tested at various points on the prairies of the west and northwest with perfect success, enduring a temperature of 30° below zero, in exposed situations, entirely uninjured. One of the hardiest Evergreens and the most beautiful in color and outline; foliage of a rich blue or sage color.

Norway. A lofty, elegant tree, of perfect pyramidal habit, remarkably elegant and rich, and, as it ages, has fine, graceful, pendulous branches; exceedingly picturesque and beautiful. One of the best Evergreens for hedges.

Evergreens are beautiful all the year, and form grand specimens in time. We strongly recommend our customers to plant more largely of hardy sorts. In the windy west they are of especial value for screens, hedges and wind-breaks. We offer best sorts at good rates.



ARBORVITÆ.



NORWAY SPRUCE.

DECIDUOUS SHRUBS.

Pruning, etc. Straggling growers, like the Forsythia and *Pyrus Japonica*, should be repeatedly pinched back or clipped during the growing season, to produce a close, compact form. Weigelas and Deutzias should be pruned like currants, leaving the strong young wood to flower. Althæas, and some of the Spiræas which bloom on the new shoots, may be pruned back each year to the old wood. A very beautiful hedge can be made by intermingling different flowering shrubs, and clipping, or allowing them to grow naturally.

ALTHÆA, or Rose of Sharon (*Hibiscus*). These are especially valuable because of their flowering in the fall, when nearly all other shrubs are out of bloom; entirely hardy and easy of cultivation.

Double Purple (*H. purpurea*). Double; reddish purple; fine.

Totus albus. Double white, with pink center.

Variegated-leaved Double Purple. A very showy, distinct kind; leaves variegated with light yellow, flowers double purple.

ALMOND, Dwarf Double Rose-flowering (*Amygdalus*). A beautiful shrub, with small, double, rosy blossoms, closely set upon the twigs before the leaves appear.

Dwarf Double White-flowering (*A. pumila alba*).

CALYCANTHUS, Sweet-scented Shrub or Allspice. An interesting shrub, having a rare and peculiar fragrance of wood and flowers; its blooms are abundant, and of peculiar chocolate color.

DEUTZIA, Slender-branched (*D. gracilis*). A charming species, introduced from Japan by Dr. Siebold; flowers pure white. Fine for pot culture, as it flowers freely at a low temperature in winter.

FORSYTHIA. Leaves dark green; flowers bright yellow, opening very early in spring. A fine, hardy shrub.

HONEYSUCKLE, Upright Tartarian. Flowers bright pink, appearing in May.

HYDRANGEA, Large-clustered. A fine, large shrub, bearing showy panicles of pink and white flowers in the greatest profusion. It is quite hardy, and is altogether a most admirable shrub for planting singly, or on the lawn in masses.

LILAC, Common Purple. One of the hardiest, best shrubs; very well known, and popular.

Large-flowering White (*S. alba grandiflora*). Has very large, pure white panicles of flowers; considered the best.

PLUM, Pink-flowering (*Prunus trilobata*). Flowers semi-double, delicate pink, closely set along slender branches, and appearing early in spring.

White-flowering. Similar to the above, except that the flowers are white, or light cream color.

PURPLE FRINGE, or Smoke Tree. A conspicuous small tree, of spreading habit covered in midsummer with a profusion of dusky, fringe-like flowers.

QUINCE, Japan Scarlet. Bright scarlet flowers in early spring. Makes a beautiful and useful hedge.

SYRINGA. All the species and varieties of the *Syringa* have white flowers, many of them quite fragrant. Assorted varieties.



HYDRANGEA.

DECIDUOUS SHRUBS, continued.

SNOW BALL. A well-known, favorite shrub, of large size, with numerous globular clusters of very handsome white flowers in June.



WEIGELA.

SPIRÆA (Meadow Sweet). The Spiræas are all elegant low shrubs of the easiest culture, and their blooming extends over a period of five months.

Arizæfolia (White Beam Tree Leaved Spiræa). An elegant species from northwest America; habit dense and bushy; plant entirely covered with greenish white blossoms in June.

STRAWBERRY TREE. The chief beauty consists in its brilliant rose-colored berries, which hang in clusters from the branches until mid-winter. Planted with a background of evergreens the contrast is very fine.

WEIGELA rosea. An elegant shrub, with fine rose-colored flowers. Quite hardy; blossoms in May.

WHITE FRINGE (*Chionanthus Virginica*). One of the best small trees, with superb foliage, and fragrant, fringe-like, white flowers. Exceedingly graceful.

DECIDUOUS HEDGE PLANTS.

HONEY LOCUST. Very hardy, and desirable for the north. Foliage fine and fern-like.

OSAGE ORANGE. Highly esteemed at the west and south; not hardy enough for the northern states.

JAPAN QUINCE. Unquestionably a fine plant for an ornamental hedge. Grows very compactly, will submit to any amount of pruning, while the brilliant and showy scarlet flowers make it exceedingly attractive.

HARDY CLIMBING AND TRAILING SHRUBS.

AMPELOPSIS Veitchii (Boston Ivy). Foliage smaller than in the American and more dense, forming a sheet of green. The plant is a little tender while young, and should be protected the first winter. When once established it grows rapidly and clings to a wall or fence with the tenacity of ivy. The foliage changes to crimson-scarlet in autumn and is very beautiful for covering walls, stumps of trees, rockeries, etc.; for ornamentation of brick and stone structures it has no equal.

Quinquefolia (Virginia Creeper). A native vine of rapid growth, with large, luxuriant foliage, which in the autumn assumes the most gorgeous and magnificent coloring. The blossoms are followed by handsome dark blue berries.

BIGNONIA radicans, or Scarlet Trumpet Flower. A splendid climber, vigorous and hardy, with clusters of large trumpet-shaped, scarlet flowers in August.

CLEMATIS, or Virgin's Bower. The different varieties and species of Clematis now in cultivation are of the highest beauty and utility. They vary greatly in their foliage and flowers, and are adapted to various uses.

Coccinea. Distinct from other varieties; bright coral-scarlet flowers. July to October.

European Sweet (*C. flammula*). The flowers of this variety are very fragrant; requires a slight protection in winter; very desirable.

Jackmanni. A very profuse-blooming variety, with flowers from 4 to 6 inches in diameter, of an intense violet-purple color, borne successional in continuous masses on the summer shoots.



JACKMANNI.



HERBACEOUS PÆONIES.

HARDY CLIMBING AND TRAILING SHRUBS, continued.

CLEMATIS Henryi. Fine, large, pure white flowers ; one of the best long bloomers.

HONEYSUCKLE, Monthly Fragrant or Dutch (*L. Belgica*).

Blooms all summer ; very sweet.

Yellow Trumpet (*L. aurea*). A well-known variety, with yellow trumpet flowers.

WISTARIA, Chinese. A most beautiful climber of rapid growth, producing long, pendulous clusters of pale blue flowers. When well established, makes an enormous growth. It is very hardy, and one of the most superb vines ever introduced.



WISTARIA.

selection will give a continuous bloom for three months. We offer the best sorts, varying from pure white, straw color, salmon flesh color and blush, to lilac and deep rose.

HERBACEOUS PÆONIES.

These are beautiful, showy, and easily cultivated plants, blooming from the beginning of May to the end of July. They should have a place in every garden. A

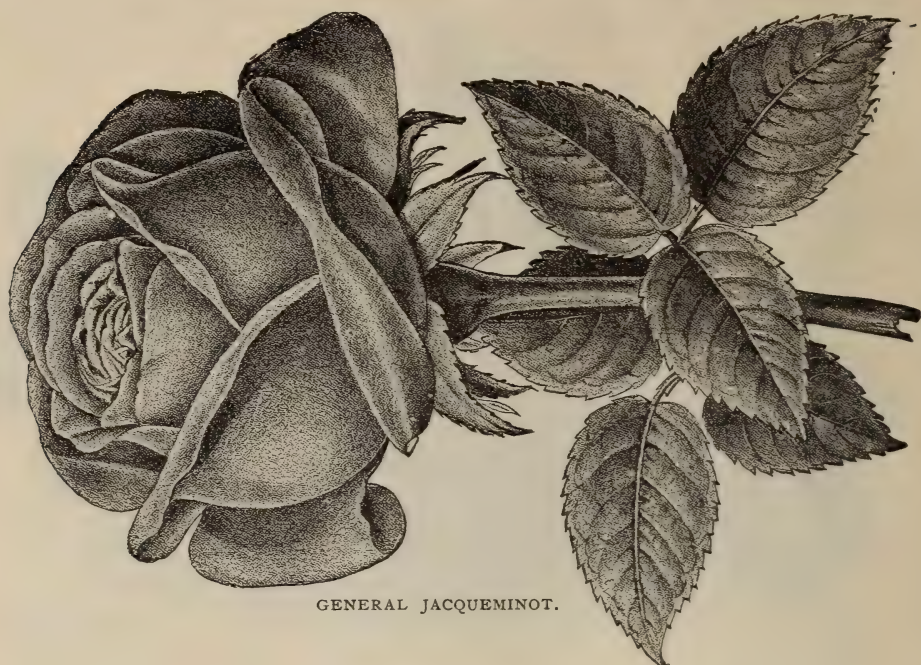


YUCCA, SPANISH BAYONET.

YUCCA, SPANISH BAYONET.

These have a grand appearance. The stem is 3 feet above the ground, covered with large bell shaped flowers on laterals, forming a perfect pyramid.

FILAMENTOSA (Adam's Needle). Thread-leaved, creamy white, 3 to 4 feet. July.



GENERAL JACQUEMINOT.

Roses.

HYBRID PERPETUALS, OR REMONTANTS.

This group comprises, for the most part, the Roses for the multitude. They are mostly hardy, vigorous, easy of culture. As a general rule, they thrive best in well-prepared loam. Close pruning is generally required, but should be regulated to some extent by the rate of growth of each variety, those of vigorous habit not requiring to be cut back so much as those of slower growth. The flowers range from purest white to deepest crimson, with intermediate shades of pink, blush, cherry, carmine and peach. The term "Perpetual" may lead some to think that they are as constant bloomers as the Everblooming Roses. This is not the case. They flower freely in June and at short intervals during the summer and fall.

Remedy for Mildew. Mildew is, perhaps, the most injurious Rose disease. It is generally caused by extremes of heat and cold, and by long continued damp, cloudy weather. The best remedies are sulphur and soot; one of these should be applied the moment the disease makes its appearance. It is a good plan to sprinkle the plants with water, so that the substance applied will adhere.

American Beauty. A strong, vigorous grower and free bloomer; deep crimson or red; very large; peculiarly sweet-scented.

Baronne de Maynard. Pure white, medium in size, double, free-blooming.

Coquette des Blanches. Pure white; very beautiful. We think this one of the best pure "whites."

Dinsmore. Flowers freely the whole season; blooms large, crimson. Highly esteemed.

General Jacqueminot. Brilliant crimson-scarlet; very showy and effective; good grower, free bloomer; one of the most popular Roses. Especially valued for its very large and elegant buds.

General Washington. Brilliant rosy carmine, large and double; a vigorous grower and generous bloomer.

Hermosa. An old, excellent and very popular Rose; blooms in fine clusters; large, very double and fragrant; color a beautiful clear rose; a constant bloomer; hardy; one of the best.



PAUL NEYRON.

HYBRID PERPETUAL or REMONTANT ROSES, continued.

La France. Beautiful pale peach, more highly flushed at center; equal in delicacy to the Teas, and greatly surpasses the Tea Rose in hardiness. Very large and full, highly perfumed; none are more profuse in blooming.

Madame Charles Wood. Flowers large; color dazzling crimson; a constant bloomer.

Paul Neyron. Deep rose; very large, very full, somewhat fragrant, free-blooming; the largest variety known.

Victor Verdier. Clear rose; globular, or fine form and a free bloomer; superb.

MOSS ROSES.

Countess of Murinais. White, slightly tinged with flesh. The best white Moss.

Crested Moss. Deep pink buds surrounded with mossy fringe and crest; fragrant. One of the best.

Glory of Mosses. Pale rose; very large, full and beautiful.

Luxembourg. Large, cupped; fine purplish crimson; luxuriant in growth and bloom.

Perpetual White. Pure white; produces very few flowers.

☞ Of the Select and Standard Roses we offer a full list, and all who order from us cannot fail to be pleased with the fine stock sent out. Write for prices on large lots of Roses.

CLIMBING ROSES.

These are admirably adapted for covering walls, trellises, old trees, unsightly buildings, etc. Their rapid growth, perfect hardiness, luxuriant foliage and immense clusters of beautiful flowers commend them at once to every one.



CRIMSON RAMBLER.

unsurpassed fragrance. From Mt. Vernon gardens originally.

Vick's Caprice. Beautiful pink flowers of fine size; striped and dashed with white and carmine; especially pretty in bud form. A very vigorous and free blooming Rose.

Crimson Rambler. This remarkable Rose was originally received from Japan. The plant is of vigorous growth, making shoots of from 8 to 10 feet high in a season, and is therefore a most desirable climbing variety, though it also may be grown in bush form. The flowers hold their beautiful crimson color a long time without fading, and give a most magnificent effect in contrast to the bright, glossy foliage. Is entirely hardy and the greatest acquisition among Roses for the past ten years.

Yellow Rambler (Aglaia). This is a very notable introduction, in the fact that it is the only yellow climbing Rose with any degree of hardiness. It is a worthy companion to Crimson Rambler, belonging to the same family, and much resembling it in manner of blooming, growth, etc. The flowers are borne in the same immense trusses, frequently 100 to 120 in a cluster. They are a decided yellow, cup-shaped, very fragrant, and last a long time without fading.

Baltimore Belle. Fine white, with blush center; very full and double.

Greville, or Seven Sisters. Large clusters of bloom, shaded to dark red.

Queen of the Prairies. Bright rose color; large, compact and globular; a very profuse bloomer. One of the best.

MISCELLANEOUS ROSES.

Mad. Plantier (Hybrid China). Pure white, above medium size, full, flat form. A spring bloomer; very strong and vigorous; excellent for massing or hedges.

Persian Yellow. Deep golden yellow flowers; double and very fine.

Mary Washington. A new perpetual-blooming hardy Rose, with long pointed buds. Blooms from early spring till late autumn; of



QUEEN OF THE PRAIRIE.

LARNED, KANSAS, January 14, 1898.

I received your letter and will now enclose partial order. Your stock gave me and my customers perfect satisfaction. I shall want hedge plants, grapes, etc.; cannot just now determine amount. Will give number of each kind later on.

TYRA MONTGOMERY.



DISTANCE APART TO SET TREES AND PLANTS.

Standard Apples	30 feet apart each way.
Standard Pears and strong-growing Cherries	20 " " " "
Duke and Morello Cherries	18 " " " "
Peaches, Apricots, Nectarines	16 to 18 " " " "
Dwarf Pears	10 to 12 " " " "
Dwarf Apples	10 to 12 " " " "
Quinces	10 to 12 " " " "
Grapes	rows 10 to 16 feet apart; 7 to 16 feet in rows.
Currants and Gooseberries	4 feet apart.
Raspberries and Blackberries	3 to 4 by 5 to 7 feet.
Strawberries for field culture	1 by 3 to 3½ feet.
Strawberries for garden culture	1 to 2 feet apart.

NUMBER OF TREES OR PLANTS REQUIRED PER ACRE AT THE FOLLOWING DISTANCES.

3 by 3 feet	4,800 trees or plants.	17 by 17 feet	150 trees or plants.
4 by 4 "	2,722 " " "	18 by 18 "	134 " " "
5 by 5 "	1,741 " " "	19 by 19 "	120 " " "
6 by 6 "	1,210 " " "	20 by 20 "	108 " " "
7 by 7 "	888 " " "	21 by 21 "	98 " " "
8 by 8 "	680 " " "	22 by 22 "	90 " " "
9 by 9 "	534 " " "	23 by 23 "	82 " " "
10 by 10 "	435 " " "	24 by 24 "	75 " " "
11 by 11 "	360 " " "	25 by 25 "	69 " " "
12 by 12 "	302 " " "	26 by 26 "	64 " " "
13 by 13 "	257 " " "	27 by 27 "	59 " " "
14 by 14 "	222 " " "	28 by 28 "	55 " " "
15 by 15 "	193 " " "	29 by 29 "	51 " " "
16 by 16 "	170 " " "	30 by 30 "	48 " " "

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We offer a large general assortment of Nursery Stock at Low Prices

STOCK AND PACKING THE BEST

Your Orders Solicited

WILLIS' NURSERIES, OTTAWA, KANSAS